

**EXPEDITED PROCEDURE REQUESTED
EXAMINING GROUP 2128**

Customer No. 22,852
Attorney Docket No. 09952.0058-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Andrea BARBARESI et al.) Group Art Unit: 2128
Application No.: 10/582,966) Examiner: Shambhavi K. PATEL
Filed: June 15, 2006)
For: METHOD FOR SIMULATING) Confirmation No.: 7718
COMMUNICATION NETWORKS,)
RELATED SIMULATOR,)
COMMUNICATION NETWORK,)
AND COMPUTER PROGRAM)
PRODUCT)

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants submit the attached "Pre-Appeal Brief Remarks" concurrently with a Notice of Appeal, a petition for a three-month extension of time, and a request for a pre-appeal brief conference pursuant to the U.S. Patent Office pre-appeal brief conference procedures published in the July 12, 2005, Official Gazette Notice.

For at least the reasons stated in the attached remarks, Applicants request that the Examiner withdraw the final rejections dated July 2, 2009, and advance this application toward allowance. Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: December 31, 2009

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PRE-APPEAL BRIEF REMARKS

Claims 23, 25-28, 30-33, 35-38, 40-42, and 44 are currently pending, of which claims 23, 33, and 44 are independent. The Examiner finally rejected claims 23, 25-28, 30-33, 35-38, 40-42, and 44 under 35 U.S.C. § 102(b) as anticipated by WO 02/104055 (“Barbaresi”).¹ The Examiner also rejected claim 27 under 35 U.S.C. § 112, ¶ 2 because the claim term “Node B” in the claim is allegedly vague and indefinite. No other objections or rejections are pending. Applicants request that the Examiner withdraw the final Office Action dated July 2, 2009, because it contains rejections based on clear errors and omissions of one or more essential elements needed for a *prima facie* rejection. See July 12, 2005, Official Gazette at 3.

A. Rejection under 35 U.S.C. § 102(b)

The pending claims are directed towards simulating a communication network on a digital computer by means of an object based architecture. Each object represents a device of the network. The simulated network is capable of operating in accordance with a plurality of different telecommunication systems. To that end, mobile terminal devices in the simulated network are modeled using a grouping of modules comprising application modules, access modules, and core network modules. For example, representative independent claim 23 recites, in relevant part:

modeling, on the digital computer, the mobile terminal devices as a grouping of modules simulating behavior of different communication protocols comprising:

¹ Since *Barbaresi* was published on December 27, 2002, less than one year before the international filing date of the present application, it does not qualify as prior art under Section 102(b). Therefore, Applicants presume that the Examiner's anticipation rejections were made under Section 102(a).

application modules having a same implementation for the plurality of different telecommunication systems,

access modules being specific for the one of the plurality of different telecommunication systems, and

core network modules being used by the plurality of different telecommunication systems but with partly different operation for each of the plurality.

Applicants submit that *Barbaresi* fails to disclose or suggest at least “**core network modules** being used by the plurality of different telecommunication systems but **with partly different operation for each of the plurality [of different telecommunication systems]**,” as recited in each of the independent claims.

As discussed below, every software module for a mobile terminal device in *Barbaresi* provides operations that are either dedicated to a particular type of telecommunication system (e.g., GSM or GPRS) or are common to every telecommunication system. *Barbaresi* fails to disclose or suggest any modules “with partly different operation for each of [a] plurality” of different telecommunication systems as claimed. For at least this reason, the anticipation rejection over *Barbaresi* is clearly erroneous and should be removed.

As explained in the Summary section of the present application, “the main technical problem constituting the basis for the present invention therefore consists of determining a simulation architecture which enables efficiently to conduct joint simulations of multiple telecommunication systems or networks, operating according to different standards . . . the architecture being at least in part reusable when inserting new systems.” Specification at 2-3. In other words, the inventive simulation architecture includes features that can be reused among multiple telecommunication systems, as new systems are inserted into the simulated architecture. This concept of

reusability is evident, for example, in the claimed “core network modules being used by the plurality of different telecommunication systems but with partly different operation for each of the plurality” of different telecommunication systems.

In sharp contrast, *Barbaresi* fails to disclose or suggest any “core network modules . . . with partly different operation for each of [a] plurality [of different telecommunication systems],” as recited in each of Applicants’ independent claims 23, 33, and 44. For example, Figure 3 in *Barbaresi* shows a hierarchy of mobile terminal modules 42-49 that are dedicated to either GSM or GPRS. None of the GSM and GPRS specific modules 42-49 in *Barbaresi* comprises a **“partly different operation for each of the plurality” of different telecommunication systems** (GSM and GPRS). That is, the GSM-specific modules in *Barbaresi* do not further provide GPRS operations or vice versa. *See, generally, Barbaresi* at 7-10. Rather, the GSM and GPRS modules are specific to their respective GSM and GPRS protocols and do not provide any “partly different operation” for each different telecommunication system. *Id.*

The mobile terminal modules in Figure 3 of *Barbaresi* also include certain modules that are common to both the GSM and GPRS systems. For example, *Barbaresi* describes MS module 41 as a “generic device” comprising separate GSM and GPRS types of object classes. *See Barbaresi* at 7:11-19. The generic MS module 41 therefore provides operations that are common to both the GSM and GPRS systems. Or put another way, the GSM and GPRS specific modules 42-49 inherit the same set of operations from the MS module 41 because of their common dependency from that MS module. *Id.* at Figure 3. Because the MS module 41 provides its operations in both the GSM and GPRS systems, the MS module 41 does not comprise a **“partly different**

operation" for each of the plurality of telecommunication systems. Rather, the generic MS module 41 provides the **same** set of operations in the GSM and GPRS systems.

Similarly, the Mobility module 40 is another generic module that does not comprise a "partly different operation" for each of the GSM and GPRS systems. *Barbaresi* discloses that the Mobility module 40 simulates displacement of the mobile terminal, i.e., causing variation of the positioning coordinates of the mobile terminal regardless of the type of protocol (GSM or GPRS) being used. *Id.* at 7:20-25.

Barbaresi does not disclose or suggest that the Mobility module 40 comprises different operations in each of the GSM and GPRS systems. Thus, *Barbaresi* fails to disclose or suggest that the generic Mobility module 40 constitutes "core network modules . . . with **partly different operation** for each of the plurality" of telecommunication systems.²

The final Office Action argues that the GSM_MS and GPRS_MS modules in *Barbaresi* correspond to the claimed "core network modules." Final Office Action at 4. Applicants respectfully disagree. *Barbaresi* discloses that the GSM_MS module 41a is specific to a GSM type of terminal and the GPRS_MS module 41b is specific to a GPRS type of terminal. *Id.* at 7:13-19. Neither of the GSM_MS and GPRS_MS modules is shared by both of the GSM and GPRS systems, let alone comprises a "partly different operation" for each of the GSM and GPRS systems. As such, the GSM_MS and GPRS_MS modules in *Barbaresi* are specific to particular types of telecommunication systems (GSM or GPRS) and do not constitute "core network modules . . . **with partly**

² *Barbaresi* does not include any written description of the MS_RR module 43 shown in Figure 3. However, like the Mobility module 40 and MS module 41, the MS_RR module 43 also appears to be a generic module that is used in both the GSM and GPRS systems based on its position in the hierarchical structure shown in Figure 3.

different operation for each of the plurality [of different telecommunication systems], as recited in each of Applicants' independent claims 23, 33, and 43.

In summary, the pending Office Action has failed point to any feature in *Barbaresi* corresponding to "core network modules being used by the plurality of different telecommunication systems but with partly different operation for each of the plurality," as recited by independent claims 23, 33, and 44. Dependent claims 25-28, 30-32, 35-38, and 40-42 depend from independent claims 23, 33, and 44, and are allowable over the art of record for at least the same reasons.

B. Rejection under 35 U.S.C. § 112, ¶ 2

The final Office Action also clearly erred in rejecting claim 27 under § 112, ¶ 2 because the claim term "Node B" is allegedly "vague and indefinite." Final Office Action at 3. The specification discloses that the term "Node B" is an acronym that is "well known to those versed in the art." Specification at 5:25-28. To one of ordinary skill in the art, "Node B" refers to a base station that communicates with a user equipment in a UMTS access network. See e.g., Specification at 7:31-35 ("devices of the access network (BTS and BSC for GSM/GPRS; NodeB and RNC for UMTS)"); see also UMTS Standard, 3GPP TS 25.101 version 5.12.0, at 10 (defining "Node B: A logical node responsible for radio transmission/reception in one or more cells to/from the User Equipment."). Thus, the claim term "Node B" is amenable to only one plausible construction and therefore is not "vague and indefinite" as alleged in the Office Action.

In view of at least the foregoing remarks, Applicants respectfully request that the pre-appeal brief conference panel remove the final rejections of claims 23, 25-28, 30-33, 35-38, 40-42, and 44 and timely allow the pending claims.